

**Master Artificial Intelligence**  
**Minor "Artificial Intelligence in Biomedical Engineering" (AIBE)**

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Course Title	Acronym	Lecturer/s	Lab/s	Language	Type	WS/SS	SWS	ECTS	Exam Details
<b>Module Title</b>									
<b>Advanced Upper-Limb Prosthetics</b>									
Upper-Limb Prosthetics	ULP	Castellini/ Thürauf	AIROB	Eng	Lecture + Exercises	WS	2+2	5	written exam, 60min
<b>AI in medical robotics</b>									
AI in Medical Robotics	AIMedRob	Mathis-Ullrich	SPARC	Eng	Lecture + Exercises	WS	2+2	5	written exam, 60min
<b>Biomedizinische Signalanalyse</b>									
Biomedizinische Signalanalyse/ Biomedical Signal Analysis	BioSig	Eskofier/Jäger/ Krauß	MAD	Eng	Lecture + Exercises	WS	2+2	5	written exam, 90min
<b>Cognitive Neuroscience for AI Developers</b>									
Cognitive Neuroscience for AI Developers	CNAID	Kist/Krauß/ Maier/Schilling	ANKI & LME – Pattern Recognition Lab & ExpHNO – Experimental Otorhinolaryngology	Eng	Lecture	WS/SS	4	5	written exam, 90min
<b>Interfacing the Neuromuscular system: Applications for Human/Machine Interfaces and Neurophysiology</b>									
Interfacing the Neuromuscular system: Applications for Human/Machine Interfaces and Neurophysiology	INS	Del Vecchio	N-SQUARED	Eng	Lecture	SS	2	5	oral exam, 30min
<b>Interpretation and Analysis of Neural and Muscle Signals (BioSignalIS)</b>									
Interpretation and Analysis of Neural and Muscle Signals	BioSignalIS	Del Vecchio/ Yang	N-SQUARED & SLP	Eng	Main Seminar	WS	2	5	seminar performance, assessed
<b>Interventional Medical Image Processing</b>									
Medical Image Processing for Interventional Applications	MIPIA	Maier	LME – Pattern Recognition Lab	Eng	Lecture	WS/SS	2	5	written exam, 60min
<b>Kolloquium im Bereich Mustererkennung</b>									
Kolloquium Magnetic Resonance Imaging	MRI	Bickelhaupt/ Giese/Knöll/ Laun/ Maier/ Nagel/ Zaiss	CIL & LME – Pattern Recognition Lab	Eng	Colloquium	WS/SS	2	2,5	seminar performance, assessed
<b>Medical Image Processing for Diagnostic Applications</b>									
Medical Image Processing for Diagnostic Applications	MIPDA	Maier	LME – Pattern Recognition Lab	Eng	Lecture	WS/SS	2	5	written exam, 60min

Medizintechnik II (Bildgebende Verfahren)									
Medizintechnik II	MT2 + MT2-RUE + MT2-TUE	Knoll/Kainz	CIL & IDEA	Ger/Eng	Lecture + Exercises	SS	4+2+2	5	modular exam (report, code implementation, presentation, homework)
Movement Neuroscience: Connections between Brain and Muscles in Humans									
Movement Neuroscience: Connections between the Brain and Muscles in Humans	MN	Del Vecchio	N-SQUARED	Eng	Lecture	WS	3	5	written exam, 60min
Rehabilitation and Assistive Robotics									
Rehabilitation and Assistive Robotics	RAR	Castellini/Thürauf	AIROB	Eng	Lecture + Exercises	SS	2+2	5	written exam, 60min
Seminar Biosignals in Rehabilitation Robotics									
Seminar Biosignals in Rehabilitation Robotics	SEM-BRR	Egle	AIROB	Eng	Main Seminar	WS/SS	4	5	seminar performance, assessed
Seminar Learning and interaction in medical robotics									
Seminar Learning and Interaction in Medical Robotics	SEM-IMR	Sierotowicz	AIROB	Eng	Main Seminar	WS/SS	4	5	seminar performance, assessed
Seminar Sprachtechnologie für Sprachpathologien									
Seminar Automatic Analysis of Voice, Speech and Language Disorders in Speech Pathologies	SemSprachPath	Maier/Yang	SLP & LME – Pattern Recognition Lab	Eng	Main Seminar	WS/SS	4	5	seminar performance, assessed
<b>Detailed information is available on Campo.</b> <b>Please take note of the data in the respective <a href="#">course catalog</a> and <a href="#">module handbook</a>.</b>									